

FOMKIN, K.V.

FOMKIN, K.V.

Conditions of oil pool formation in Devonian deposits as related to
an evaluation of their oil and gas potentials, illustrated by the
Archeda and Don Valleys in Stalingrad Province. Sov. geol. no.58:
128-137 '57. (MIRA 11:2)

1. Moskovskiy neftyanoy institut imeni akademika I.M. Gubkina.
(Stalingrad Province--Petroleum geology)
(Stalingrad Province--Gas, Natural--Geology)

MUZYCHENKO, Nina Mikhaylovna; YURKEVICH, Tat'yana Yakovlevna; BAKIROV,
A.A., prof., glav.red.; RYABUKHIN, G.Ye., prof., red.;
USPENSKAYA, N.Yu., prof., red.; ZHDANOV, M.A., prof., red.;
DOLITSKIY, V.A., dots., red.; SPIKHINA, A.M., kand. geol. nauk,
red.; YUDIN, G.T., kand. geol.-min. nauk, red.; TABASARANSKIY,
Z.A., dots., red.; BAKIROV, E.A., dots., red.; BYKOV, R.I.,
dots., red.; FONKIN, K.V., kand. geol.-min. nauk, red.; KNYAZEV,
V.S., dots., red.; SHIROKOV, V.Ya., st. nauchn. sotr., red.;
YUNGAS, S.M., ved. red.; NEVEL'SHTEYN, V.I., ved. red.

[Geological conditions and fundamental characteristics of oil
and gas accumulations in the limits of the Epi-Hercynian platform
in the south of the U.S.S.R.) Geologicheskie usloviia i osnovnye
zakonomernosti razmeshcheniya skoplenii nefti i gaza v predelakh
epigertsinskoi platformy iuga SSSR. Pod red. A.A.Bakirova. Mo-
skva, Gostoptekhizdat. Vol.1. [Central Asia] Sredniaia Azia.
1963. 442 p. Vol.3. [Volga Valley portion of Saratov and
Volgograd Provinces] Saratovsko-Volgogradskoe Povolzh'e. 1963.
153 p. (MIRA 17:4)

1. Moscow. Institut neftekhimicheskoy i gazovoy promyshlennosti.

MUZYCHENKO, N.M.; FOMKIN, K.V.; GORDINSKIY, Ye.V.

Nature of the change of the structural forms in the Paleozoic
cross section of the Volga Valley portion of volgograd Province.
Neftegaz. geol. i geofiz. no. 5:12-15 '63. (MIRA 17:5)

1. Moskovskiy ordena Trudovogo Krasnogo Znameni institut
neftekhimicheskoy i gazovoy promyshlennosti imeni akademika
I.M.Gubkina.

FOMKIN, K.V.; CHERNYSHEV, S.M.

Characteristics of the formation of the oil pools of the
Praskoveya-Achikulak Area of uplifts. Trudy MINKhGP no.43:
75-81 '63. (MIRA 17:4)

VAGIN, S.B.; GORDINSKIY, G.Ye.; GRIBOVA, Ye.A.; DUBROVSKAYA,M.A.; ZHDANOV, M.A., prof. ; ZYUZINA, N.G.; KARTSEV, A.A.; KNYAZEV,V.S.,dots.; LEONOVA, R.A.; POKROVSKAYA, L.V.; SUDARIKOV, Yu.A.; YUDIN,G.T.,dots.; SOKOL'SKAYA, Z.V.; TOMKINA, A.V.; USPENSKAYA,N.Yu.,prof.; FOMKIN, K.V.,kand.geol-min.nauk; CHERNYSHEV,S.M.; YAVORCHUK, I.V.; BAKIROV, A.A., prof., red.; DEMENT'YEVA, T.A., ved. red.

[Geological conditions and basic characteristics of oil and gas accumulations in the limits of the Epi-Hercynian Platform in the south of the U.S.S.R.] Geologicheskie usloviia i osnovnye zakonomernosti razmeshcheniia skoplenii nefti i gaza v predelakh epigertsinskoi platformy iuga SSSR. Pod obshchei red. A.A.Bakirova. Moskva, Nedra. Vol.2. 1964. (MIRA 17:12) 306 p.

1. Moscow. Institut neftekhimicheskoy i gazovoy promyshlennosti.

FOMKIN, K.V.

Formation of gas condensate pools in western Ciscaucasia.
Neftegaz.geol. i geofiz. no.2:12-15 '64. (MIRA 17:4)

l. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti
im. I.M.Gubkina.

FOMIN, K.V.

Classification of pools on the basis of their time of formation.
Izv.vys.ucheb.zav.; neft' i gaz 7 no.4:3-5 '64. (MIRA 17:5)

1. Moskovskiy institut neftakhimicheskoy i gazovoy promyshlennosti
imeni akademika I.M.Gubkina.

FOMKIN, K.V.

Formation of Upper Cretaceous oil and gas accumulations in
eastern Caucasus. Neftegaz. geol. i geofiz. no.3:11-14
'65. (NKA 18:7)

1. Moskovskiy ordena Trudovogo Kraznego Znachenii institut
neftakhimicheskoy i gazovoy promyshlennosti im. akad. Gubkina.

FOMENKO, N. Ye., Engr

"Modeling Problems in the Investigation of Localized Resistance in the Pipelines of Water-Supply Systems." Cand Tech Sci, All-Union Sci-Res Inst of Water Supply, Sewerage, Hydraulic Engineering Structures, and Engineering Hydrogeology, 13 Nov 54. (VM, 4 Nov 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (11)

SO: Sum. No. 521, 2 Jun 55

124-58-6-6629

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 6, p 47 (USSR)

AUTHORS: Gladkov, V. A., Fomkin, N. Ye.

TITLE: Using Models to Investigate Pressure Losses in Pumping-station Networks (Primeneniye metodov modelirovaniya dlya issledovaniya poter' napora v kommunikatsiyakh nasosnykh stantsiy)

PERIODICAL: V sb.: Issledovaniya po gidravlike vodoprovodn. setey i nasosn. stantsiy. Moscow, Gosstroyizdat, 1954, pp 63-88

ABSTRACT: Results are given of investigations conducted with models of pumping-system networks and of tests made of individual fittings (bends of various types, three-way joints, and reducers). Experiments were made to determine the influence of the scale effect on coefficients of resistance. In tests made of steel models the lower limits of the so-called self-similar range were determined (relative to the Reynolds number), which limits declined as the model's diameter decreased; in addition, various factors were determined with respect to a number of fittings and types of pumping systems. As a model's size decreased, its coefficient of resistance was found to increase. An approximate modeling scale is given for a particular case of fittings and

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124-58-6-6629

Using Models to Investigate Pressure Losses (cont.)

pumping-system assemblies made from one type of material by a given fabrication method. It emerged that fittings of the same type welded from sheet steel and light sheet iron exhibited differing coefficients of resistance in the self-similar range and that the coefficients of resistance were not uniformly dependent on the model scale. For this reason it is still not possible to give a quantitative estimate of the influence of the model scale on the coefficient of resistance which would be accurate enough for use in large-diameter pumping-network designs.

B. I. Yan'shin

1. Pumps--Performance 2. Pipe fittings--Effectiveness

Card 2/2

GLADKOV, V.A.; FOMKIN, N.Ye.

Pressure losses in standard water meters and water inlet
pipes of buildings. Vod. i san. tekhn. no.7:16-17 Jl '56.

(MIRA 9:10)

(Water pipes) (Water meters)

ANOROV, S.N.; FOMKIN, N.Ye.

New butt joint for asbestos-cement pipes. Vod. i san. tekh. no.7:
24-26 J1 '61. (MIRA 14:7)
(Pipe fittings)

FOMKIN, N.Ye., inzh.; KLESHOV, B.A.

Laying an asbestos-cement pipeline with a new type of butt joint.
Vod. i san. tekh. no.1:31 Ja '63. (MIRA 16:2)
(Pipe, Asbestos-cement)
(Pipe joints)

FOMKIN, N.Ye., inzh.

New design of a blind flange for testing asbestos-cement pressure
piping. Vod.i san.tekh. no.2:30 F '63. (MIRA 16:2)
(Pipe flanges)

FOMKIN, N. E., inzh.

A new construction of plugs for testing asbestos cement
pressure pipelines. Khidrotekh i melior 8 no. 10: 300
'63.

FOMKIN, N.Ye., kand.tekhn.nauk

Arrangement of units made of fittings and armatures in asbestos-cement pipelines. Vod. i san. tekhn. no.11:36-37 N '64.
(MIRA 18:2)

TSVETKOV, Vladimir Petrovich, dots.; KLESHOV, Boris Aleksandrovich;
FOMKIN, Nikolay Yefimovich, kand. tekhn. nauk; ANOROV,
Sergey Nikolayevich, st. nauchn. sotr.; PERFILOV, I.F.,
inzh., red.

[Pressure-water conduits of reinforced concrete pipes;
practices of the "Kalininetspsstroy" Trust and the All-
Union Research Institute for Water Supply, Sewer Systems,
Hydraulic Engineering Structures, and Hydrogeological
Engineering (VODGEO)] Napornyi vodovod iz zhelezodorozh-
nykh trub; opyt tresta "Kalininetspsstroy" i VNII vodo-
snabzheniya, kanalizatsii, gidrotekhnicheskikh sooruzhenii
i inzhenernoi hidrogeologii (VODGEO). Moskva, Stroizdat,
1964. 26 p. (MIRA 17:12)

1. Moscow. Nauchno-issledovatel'skiy institut organizatsii,
mekhanizatsii i tekhnicheskoy pomoshchi stroitel'stva.
2. Zaveduyushchiy kafedroy Kalininskogo torfyanogo instituta
(for Tsvetkov).
3. Glavnyy inzhener tresta "Kalininetspsstroy"
4. Vsesoyuznyy nauchno-issledovatel'skiy in-
stitut vodosnabzheniya, kanalizatsii, gidrotekhnicheskikh so-
oruzheniy i inzhenernoy hidrogeologii (for Anorov).

TETRYATNIKOV, Mikhail Stepanovich; SIVKOVSKIY, N.I., retsenzent; OKHOTNIKOV, G.I., retsenzent; MAYORSKIY, G.I., redaktor; FOMKINSKIY, L.I., redaktor; MAKRUSHINA, A.N., redaktor izdatel'stva; BEGICHNVA, M.N., tekhnicheskiy redaktor

[Organization of navigation and the work of harbors] Organizatsiya dvizheniya flota i raboty portov. Moskva, Izd-vo "Rechnoi transport," 1956. 355 p.
(Harbors) (MLR 9:11)

ZVONKOV, V.V., prof.; FOMKINSKIY, L.I., inzh.. Prinimali uchastiye:
STRUNNIKOVA, V.P., inzh.; POKROVSKAYA, I.K., inzh.; DZADZAMIYA,
L.A., tekhnik; SHAPOSHNIKOV, Ye.M., inzh.. KHOBOTOV, Yu.A..
red.; BOBROVA, V.A., tekhn.red.

[Ship tractive and propulsive speed calculations; a proposed
guide] Sudovye tiagovye i skorostnye raschety; proekt ruko-
vodstva. Moskva, Izd-vo "Technoi transport," 1959. 213 p.
(MIRA 13:?)

1. Chlen-korrespondent Akademii nauk SSSR (for Zvonkov).
2. TSentral'nyy nauchno-issledovatel'skiy institut ekonomiki i
ekspluatatsii vodnogo transporta (for Shaposhnikov).
(Towing) (Ship propulsion)

FOMKINSKIY, L.I., inzh.; POSTNOV, A.V.

Valuable contribution to marine heat engineering ("Heat calculation for marine steam engines, based on the theory of similitude" by V.V. Lekhanin. Reviewed by L.I. Fomkinskii, A.V. Postnov). Rech.transp. 18 no.3:56-3 of cover. Mr '59. (MIRA 12:4)

(Heat engineering)
(Marine engines)
(Lekhanin, V.V.)

FOMKINSKIY, L.I., inzh.

Simplified method in designing the most efficient propellers
without guide rings. Rech.transp. 18 no.10:32-35 0 '59.
(MIRA 13:2)
(Propellers)

VAGANOV, Gennadiy Ivanovich, dots., kand. tekhn. nauk; SHANCHUROVA, Valentina Konstantinovna, kand. tekhn. nauk; SHERSTINSKIY, Efraim Khaimovich, inzh.; Prinimali uchastiye: SIROTINA, G.N., dots., kand. tekhn. nauk; POSTNOV, A.V., kand. tekhn. nauk; LESYUKOV, V.A., inzh. vodnogo transporta, dots., kand. tekhn. nauk, retsenzent; FOMKINSKIY, L.I., starshiy nauchnyy sotr., retsenzent; MAKRUCHINA, A.N., red. izd-va; RIDNAYA, I.V., tekhn. red.

[Ship propulsion; methods and examples for carrying out ship propulsion calculations] Tiaga sudov; metodika i primery vypolneniya sudovykh tiagovykh raschetov. Moskva, Rechnoi transport, 1962. 241 p. (MIRA 15:8)

1. Kafedra organizatsii dvizheniya Gor'kovskogo instituta inzhenerov vodnogo transporta (for Lesyukov). 2. TSentral'nyy nauchno-issledovatel'skiy institut ekonomiki i ekspluatatsii vodnogo transporta (for Fomkinskiy).

(Ship propulsion)

YUMIN, Naganail Aleksandrovich, kand. tekhn. nauk, dots.;
ARTAMONYCHEV, Aleksandr Nikolayevich, kand. tekhn. nauk,
dots.; MISHINA, Mariya Nikolayevna, kand. tekhn. nauk,
dots.; RAGOZIN, Boris Kupriyanovich, kand. tekhn. nauk;
GOLOVNIKOV, V.I., st. nauchn. sotr., kand. tekhn. nauk,
retsenzent; BUCHIN, Ye.D., st. nauchn. sotr., retsenzent;
REZNICHENKO, U.S., st. prep., retsenzent; FOMKINSKIY, L.I.,
inzh., red.; MORALEVICH, O.D., red. izd-va; RIDNAYA, I.V.,
tekhn. red.

[Organization of river fleet operations] Organizatsiya raboty
flota; zadachi i raschety. Moskva, Izd-vo "Rechnoy transport,"
1960. 212 p.
(MIRA 16:8)

1. Zaveduyushchiy kafedroy "Organizatsiya raboty flota i
portov" Novosibirskogo instituta inzhenerov vodnogo transporta
(for Yumin).

(Inland water transportation)

FOMKINSKIY, L., inzh.

Determining the speed and power of motor cargo carriers by
calculation. Rech. transp. 24 no. 10:41-43 '65.

(MIRA 18:12)

POMOCHKIN, I.P.

Effect of caffeine, diuretin, and diaphylline on the oxygen content of the blood. Farm. i toks. 28 no.5:561-566 S-0 '65.
(MIRA 18:12)

l. Kafedra farmakologii (zav. - prof. N.S.Shvarsalon) Krymskogo meditsinskogo instituta, Simferopol'. Submitted December 18, 1964.

NIKOLAYEV, D.D.; ISKRA, G.S.; MEL'NICHENKO, A.F.; MAKAREVICH, Yu.S.;
STARIKOV, A.A.; FOMOVSKIY, V.A.

Mechanization of the operations in selecting and preparing coal
samples from railroad cars in the Gorlovka Coke and Chemical Plant.
Koks i khim. no. 2:6-10 '63. (MIRA 16:2)

1. Ukrinsugol' (for Nikolayev). 2. Gorlovskiy koksokhimicheskiy
zavod (for Iskra, Mel'nichenko). 3. Dongiprouglemash (for Markarevich,
Starikov, Fomovskiy).

(Gorlovka—Coke industry—Equipment and supplies)

Hemus Khan, E. F.

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WILLIAMS, L. S., 2275 University, Yu. S., 3111 Yonge Street, Toronto, Ontario.

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Measurement of Spectra and the Average Fusion Number in the

PERIODICALS

Churnal eksperimentirovaniy i teoriiicheskoy fiziki, 1960, Vol. 36, No. 3, pp. 671-684

TEXT: The present article deals in detail with the experimental investigation made in the energy range 0.4-1.5 MeV by means of the time-of-flight technique and a pulsed neutron source. The experimental arrangement is schematically shown in Fig. 1. The reaction $D(n,\gamma)He_3$ served as primary neutron source in the target of an accelerator. The target was bombarded with 150-kev deuterons. The time-of-flight determination was carried out electronically by measuring the time intervals between the pulses in the detector. The deuteron energies were obtained by modulation; i.e., by means of a sinusoidal

Electric field ($E = 270 \text{ e.v.}$)—The pulses of the 14.5-Mev neutrons, issued from the source, had a frequency of 4 Mc/sec. The average of 4 neutron events obtained for pulses. Two linear ionization chambers were used (with U_{25} (90 per cent) and island-gate pulses). The two ionization chambers were filled with a mixture of argon and CO₂ (90 per cent), at 160 torr. A teflon crystal (diameter 80 mm., thickness 75 μ) with a photomultiplier of the type R-117 was used as neutron detector. The efficiency of the detector was determined according to Emden.² Figure 2 shows the efficiency as a function of the energy of three threshold energies 0.2, 0.55 and 0.7 Hev. The electronic apparatus used to measure the pulse distribution in the detector with respect to time is described in detail. Fig. 3 illustrates a block scheme. Fig. 4 recorded pulse versus time diagram. Fig. 5 shows the time distribution of the pulses recorded with the measurement of the neutron spectrum of the U-235 fission. Besides neutron and x-ray of the fission the following were also recorded: laser, primary neutrons, and quantity of the interaction between primary neutrons and parts of the apparatus, radiations of the activated

substances, neutrons, and γ -quanta due to primary neutron scattering and 2.5-Myr neutrons from the accelerator. Details and accuracy of the "parasitic" or the measured values from the background are discussed. The neutron spectra of U235 and U238 fission are shown in Figs. 7a and 7b. All curves show a similar course: a sharp ascent at peak, and an even descent. Figs. 6a and 6b show the corresponding analysis of the spectra in the coordinates $(\nu/E)/E$ and E^2/ν . The spectra can be satisfactorily represented by

$$Y(E) = \frac{A}{E^2} \exp \left(-\frac{E}{E_0} \right) + \left(1 - \frac{A}{E^2} \right) \exp \left[\frac{-E}{E_0} \left(1 + \frac{E}{E_0} \right)^{\frac{1}{2}} \right] \exp \left(-\frac{E}{E_0} \right) \exp \left(-\frac{E}{E_0} \right).$$

The analytical results are listed in Table 1. The following parameter values are indicated for U235: $E_0 = (1.06 \pm 0.01)$ Mev; $T = (0.37 \pm 0.06)$ Mev; $A = (0.04 \pm 0.005)$ Mev; $\Gamma = (0.16 \pm 0.02)$ Mev; $\sigma = (2.27 \pm 0.02)$ barn. The average $E_0 = (1.16 \pm 0.03)$ Mev; $T = (0.40 \pm 0.04)$ Mev; $\Gamma = (0.21 \pm 0.02)$ barn. The average $E_0 = (1.16 \pm 0.03)$ Mev; $T = (0.40 \pm 0.04)$ Mev; $\Gamma = (0.21 \pm 0.02)$ barn.

data were obtained at $E_n = 0.01$, and -0.115 ± 0.011 (E_n = neutron energy). In conclusion, the authors thank Mr. V. V. Malov, N. I. Kostylev, V. A. Parshin, A. I. Ponomarev, A. S. Shchegolev, and V. V. Tikhonov for their help.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413510015-1"

ACCESSION NR: AP4037610

S/0056/64/046/005/1906/1908

AUTHORS: Glazunov, Yu. Ya.; Savin, M. V.; Safina, In. N.; Fomushkin, E. F.; Khokhlov, Yu. A.

TITLE: Spectra of photoneutrons from platinum, bismuth, lead, and uranium

SOURCE: Zh. eksper. i teor. fiz., v. 46, no. 5, 1964, 1906-1908

TOPIC TAGS: photoneutron, neutron spectrum, gamma neutron reaction, platinum, bismuth, lead, uranium

ABSTRACT: The photoneutron spectra from platinum, lead, bismuth, and uranium were measured with a linear accelerator by the time-of-flight method. Targets of natural isotopic composition were bombarded by 16MeV electrons. The neutrons were counted by a fission chamber located 35 meters from the target at 90° to the electron beam. In the photoneutron spectra from bismuth and lead, two groups

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of neutrons show up clearly in addition to the evaporation spectrum (in the regions 1.3--3 MeV and >3 MeV. The deviation from the statistical distribution above 3 MeV, observed by many authors, is apparently due to the contribution of the direct interaction of γ quanta with neutrons in different nuclear shells. The authors believe that the neutron peak at 1.3--3 MeV is due to single-particle transitions from excited levels of the compound nucleus, which are possible in the excitation region ~10 MeV. Orig. art. has: 1 figure and 2 formulas.

ASSOCIATION: None

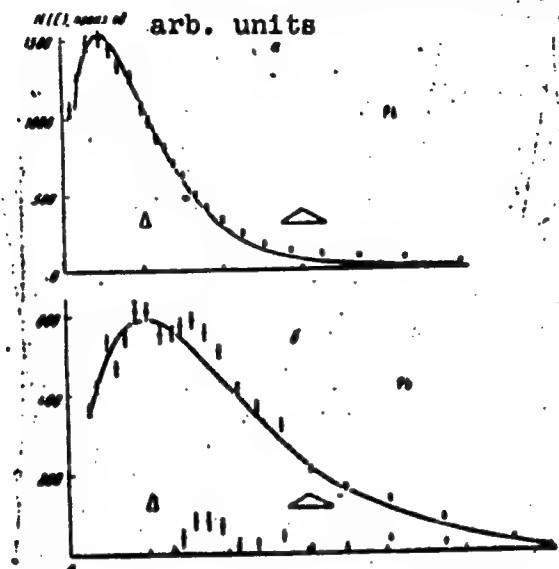
SUBMITTED: 11Oct63 DATE ACQ: 09Jun64 ENCL: 02
SUB CODE: NP NR REF Sov: 002 OTHER: 000

Card 2/4

ACCESSION NR: AP4037610

ENCLOSURE: 01

Energy distributions of photoneutrons for Pt and Pb

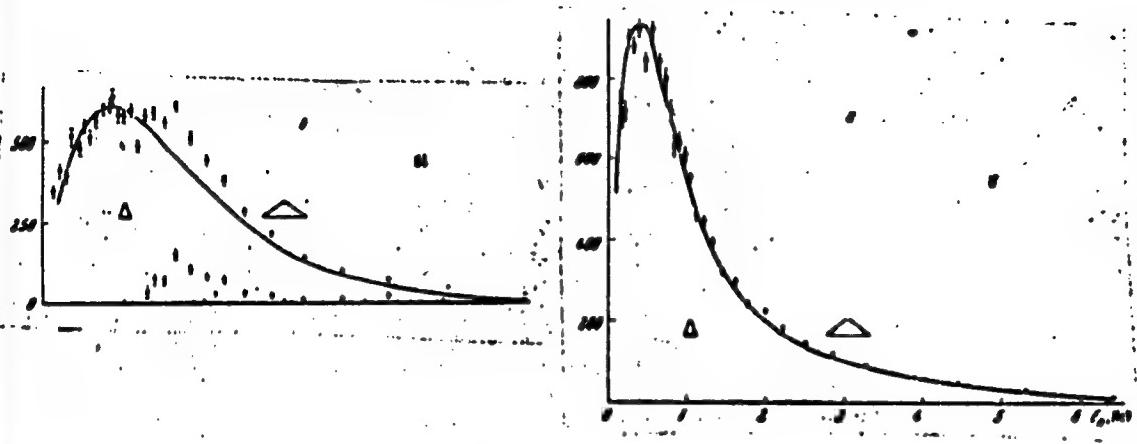


Card 3/4

ACCESSION NR: AP4037610

ENCLOSURE: 02

Energy distributions of photoneutrons for Bi and U



Card 4/4

Fomushkin, E. F.

AUTHORS: Vasil'yev, Yu. A., Zamyatnin, Yu. S., Toropov, P. V., 89-12-9/29
Fomushkin, E. F.

TITLE: Measurement of the Neutron Spectrum in the Area below 0,5 MeV by
Means of the Time of Flight Method (Izmereniye spektrov neytronov
v oblasti energiy nizhe 0,5 MeV metodom vremeni proleta)

PERIODICAL: Atomnaya Energiya, 1957, Vol. 3, Nr 12, pp. 542-544 (USSR)

ABSTRACT: By applying an impulse source of neutrons the secondary neutron spectrum is measured, which develops, if 14 MeV neutrons pass through layers of uranium. A fission chamber, which was connected with a 30 channel analyzer, was used as a neutron detector. The distance between source and detector was 6 m. The energy spectra for the following samples were shown by a graph:
a) U²³⁵ : 2,7 cm thick ($\sim 1/3 \lambda_{in}$)
b) U²³⁸ : 2,5 cm thick ($\sim 1/3 \lambda_{in}$)
c) U²³⁸ : 8 cm thick ($\sim in$)

The spectra obtained from a) and b) originate from a simple interaction between 14 MeV neutrons and the uranium nuclei. It can be assumed that in the measured area of energy the development of the secondary neutrons originate from evaporation from

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Measurement of the Neutron Spectrum in the Area 0,5 MeV by Means 89-12-9/29
of the Time of Flight Method.

the stimulated conditions of the compound core.
For the case c) the development of a higher number of slow neutrons was ascertained. These are the consequence of a multiple-inelastic interaction which confirms the existence of low situated levels in the U²³⁸ nucleus. There are 3 figures and 3 references, 2 of which are Slavic.

SUBMITTED: July 20, 1957

AVAILABLE: Library of Congress

Card 2/2

22441

S/089/60/009/006/001/011
B102/B212

26.2249

AUTHORS: Vasil'yev, Yu. A., Zamyatnin, Yu. S., Sirotinin, Ye. I.,
Fomushkin, E. F.

TITLE: Spectra of fission neutrons from U²³⁵ emitted at angles of 0, 45, and 90° to the direction of flight of the fragments

PERIODICAL: Atomnaya energiya, v. 9, no. 6, 1960, 449-454

TEXT: The results of previous measurements of spectra of fission neutrons and their angular distribution with respect to the direction of flight of the fragments agree well with theoretical data (based on an assumption of isotropic neutron evaporation and Maxwell neutron distribution); but this theory furnishes values for the mean kinetic energy of the fragments, which are somewhat too low, and, therefore, the correctness of above assumptions may be doubted. In order to check it the authors have measured again the neutron spectra, and this paper reports on the results. The spectra of the neutrons emitted at 0, 45, and 90° to the direction of flight of the fragments in 14.3-Mev neutron induced U²³⁵ fissions have been measured, and also their angular distribution has been determined. The

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Spectra of fission neutrons...

time-of-flight method was utilized, the distance of flight was 75 cm and the resolution time 7 μ sec. A detailed description of this method and the equipment used is given in Ref. 9 (Yu.A.Vasil'yev i dr. Zh.eksperim. i teor.fiz. 38, 671 (1960)). However, the method employed here made use of a multi-layer fission chamber with fragment collimation as a fission-

neutron source. A U^{235} layer had been deposited on both sides of an aluminum foil (having a thickness of 0.5 mm); the thickness of the layer was 6 mg/cm², and the total weight of the two layers amounted to 3.5 g. 0.75% of the fission taking place in the uranium have been recorded. The chamber was filled with a mixture of argon and carbon dioxide (10%) (pressure 760 mm Hg). The rise time of the pulses was about 0.1 μ sec at a 1 kv electrode potential. Fig. 2 shows the experimental setup. Fig. 3 shows the neutron spectra $F(E_n)$ in arbitrary units measured at 0°, 45°, and 90°. Fig. 5 shows the spectra of neutrons emitted from the fission fragments. The angular distribution has been calculated by numerical integration with respect to the neutron energy (cf. Table). The angular distribution of the γ rays ($E_\gamma > 0.3$ Mev) produced during fission has also been calculated by assuming an isotropy relative to the direction of flight

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Spectra of fission neutrons...

S/089/60/009/006/001/011
B102/B212

of the fragments. Here are the values obtained: $n_\gamma(0^\circ):n_\gamma(45^\circ):n_\gamma(90^\circ) = (1.31 \pm 0.07):(1.22 \pm 0.06):1.00$. The neutron distribution showed a considerable anisotropy: $b_{14} = N(0^\circ)/N(90^\circ) = 3.23 \pm 0.12$. The following value has been obtained after subtracting the neutrons evaporated before a fission $b'_{14} = 4.03 \pm 0.23$; this value agrees within the limits of error with that obtained for thermal neutrons ($b_t = 4.35 \pm 0.19$). In order to describe these experimental results theoretically, calculations have been done and various assumptions have been made regarding the neutron spectra in the coordinate system of the fragments. However, no variant was able to yield satisfactory results that agreed with all three spectra which have been examined. The authors thank P. V. Toropov, Yu. Ya. Glazunov, A. N. Maslov, N. I. Nemudrov, V. A. Parshina, V. S. Khorkhordin, V. A. Komarova, M. P. Novikova, G. A. Peretokina, and L. A. Chernova for assistance. There are 6 figures, 1 table, and 14 references: 6 Soviet-bloc and 8 non-Soviet-bloc. The three references to English-language publications read as follows: Ref. 7: W. Stein. Phys. Rev. 108, 94 (1957); Ref. 10: S. Whetstone. Phys. Rev., 114, 581 (1959); Ref. 12: J. Terrell,

Card 3/
4-

L 48838-65 EWT(m) Feb DIAAP DM
ACCESSION NR: AP5005809

S/0089/65/018/002/0178/0179

AUTHOR: Fomushkin, E. F.

11

B

TITLE: Angular distribution of collimated radiation

SOURCE: Atomnaya energiya, v. 18, no. 2, 1965, 178-179

TOPIC TAGS: probability theory, collimation, angular distribution

ABSTRACT: A method based on probability theory is used to calculate the characteristics of propagation of radiation.¹⁹ In this method the aggregate of all the values of the parameters which determine the propagation of the radiation forms the so-called field of events. The volume of the field of events can be calculated without any difficulty in most cases. Collimation signifies that only part of the values of the parameters satisfy the condition of passing through the collimator. This part forms the field of events favoring this passage. The ratio of the volume of the field of events favoring a given phenomenon to the total volume of the field of events is equal to the probability of this phenomenon. The method of realizing the collimation does not play any role in the calculation. The ideas are applied to a collimating system of conical form and of rectangular cross sec-

Card 1/2

L 48838-65
ACCESSION NR: AP5005809

tion. The results agree with earlier calculations by others and it is concluded that the method can be applied to a large number of problems and its use greatly simplifies the calculations. Orig. art. has: 3 figures and 4 formulas.

ASSOCIATION: None

SUBMITTED: 08Feb64

ENCL: 00

SUB CODE: NP. OP

NR REF Sov: 002

OTHER: 000

Card 2/2

FOMUSHKIN, V.M.

Water vole control in a closed urban reservoir. Zool. zhur. 40
no.12:1899-1900 D '61. (MIRA 15:3)

1. Central Anti-Plague Observation Station, Moscow.
(Moscow--Field mice--Extermination)

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413510015-1

FOMUSHKIN, V.M.

New traps for rodents. Dokl. Irk. gos. nauch.-issl. protivochnum.
inst. no. 5:227-230 '63 (MIRA 18:1)

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413510015-1"

PYUSHKIN, V.M.; SKORYUKINA, V.A.

Study of a tularemia focus in a floodplain-swamp region during
winter. Zool. zhur. 44 no.3:452-454 '65.

(MIRA 18:8)

I. Protivochumnaya laboratoriya Ministerstva zdravookhraneniya SSSR,
Moskva i Kalyzhskaya oblastnaya sanitarno-epidemiologicheskaya
stantsiya.

POMYUK, M.A.

"Gothic disease" of potatoes. Nauch. trudy inst. ent. i fit.
no. 4:62-92 '53. (MLRA 9:4)
(Potatoes--Diseases and pests)

POMYUK, M.K.

Effect of soil temperature and moisture on degenerative diseases in
potatoes. Nauch. trudy inst. ent. i fit. no. 4:105-125 '53. (MLRA 9:4)
(Potatoes--Diseases and pests)(Soil moisture)(Soil temperature)

FOMYUK, M. K.

FOMYUK, M. K.

"Potato 'Gotika' (a surplus of nitrogen at the expense of other elements) and the Basis for Its Control." Cand Biol Sci, Inst of Microbiology, Acad Sci USSR, Moscow 1955. (KL, NO 9, Feb 55)

SO: Sum. No. 631, 26 Aug 55-Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (14).

AUTHORS: Borshteyn, B. I., Pomyuk, M. K., Chkanenko, A. S. SOV/ 20-120-2-58/63

TITLE: The Influence of the Degeneration of the Type "Gothic" (Spindle-Tuber) on the amino acid Content in Potato Tuber (Vliyanie vyrashcheniya tsvet gotiki na soderzhanii aminokislot v klubnyakh kartofelia)

PERIODICAL: Doklady Akademii Nauk SSSR, 1959, vol. 125, Nr 2, pp. 425-428 (USSR)

ABSTRACT: Among the processes that accompany the degeneration of potatoes, the derangement of the nitrogen-metabolism is the most characteristic one. It was proved in several works (references 1,2) that in the case of an affection with "gothic", a double amount of non-protein is contained in the potato tubers, especially of amino nitrogen as compared to the healthy ones. Essential differences concerning protein/nitrogen were not reported. Table 1 shows data on the mentioned nitrogen-contents. These data show that independent from the origin of the gothic degeneration (whether caused by different forms of nutrition or by artificial affection), analogous derangements of the nitrogen-metabolism are caused

Card 1/4

The Influence of the Degeneration of the Type "Gothic" (Spindle-Tuber) on the Amino Acid Content in Potato, Tubers

SOV/ 20-12C-2-58/65

with different types of potatoes. Table 1 shows a considerable increase of amino-nitrogen in the tubers, in the case of an affection by "gothic". In order to clarify variations in the existence of the free amino acids, healthy and diseased tubers were investigated by means of two-dimensional distribution-chromatography. Furthermore the existence of amino acids of the protein hydrolyzate was determined. The main part of the proteins and of the free amino acids is concentrated in the juice of the tubers (references 3-5). In the 70° ethanol extract no differences could be proved, but the chromatograms of the amino acids in the juice were more distinct. The methodology of determination is described. Table 2 and figure 1 show the results. On table 2 we can see that the juice of the degenerated tubers contains 17 amino acids (among them 2 amides), whereas in the juice of healthy tubers there are only 12 amino acids. In the degenerated tubers there is 2 to 3 times more asparagine, glutamine of

Card 2/4

The Influence of the Degeneration of the Type "Gothic" (Spindle-Tuber) on the Amino Acid Content in Potato Tubers

JULY 20 1963
304/20-120-2-58/63

the group: Methionine + valine + tryptophane and of the leucine group, but less cysteine, glutamine acid and asparagine acid than in healthy ones. In the latter ones no α -alanine, γ - and β -amino butyric acid, proline and tyrosine were determined. The amount of amino nitrogen is the same in the proteins of diseased and healthy tubers. After the separation of the protein hydrolyzate by means of chromatography, in the proteins of both, healthy and degenerated tubers, 15 amino acids were determined. Comparing the data of Mul'der and Bakema (Mulder and Bakema), (reference 5) with the results obtained by the authors, one can recognize that a surplus nitrogen-nutrition changes the nitrogen-metabolism in the same direction as the gothic disease. A surplus of potassium and phosphorus acts in a contrary direction. The too extensive nitrogen nutrition increases the susceptibility to gothic, whereas potassium and phosphorus increase the resistance against it (references 7-9). There are 2 figures, 2 tables, and 12 references, 8 of which are Soviet.

Card 3/4

The Influence of the Degeneration of the Type "Gothia" SUV/20-120-2-5c/63
(Spindle-Tuber) on the Amino Acid Content in Potato Tuber

ASSOCIATION: Ukrainskiy nauchno-issledovatel'skiy institut fiziologii
rasteniy (Ukrainian Scientific Research Institute for
Plant-Physiology)

PRESENTED: December 20, 1957, by A. L. Kursanov, Member, Academy of
Sciences, USSR

SUBMITTED: March 30, 1957

1. Potatoes--Pathology
2. Potatoes--Chromatographic analysis
3. Amino acids--Determination

Card 4/4

BONDIN, V.P.; SVECHNIKOV, I.D.; CHIGAREV, G.A.; SAZONNIK, Kh.V.; SANIN, V.A.;
FOMYUK, M.K.

Possible methods for aerial chemical control of the Colorado
beetle. Zashch. rast. ot vred. i bol. 6 no.9:47-49 § '61.

1. Gosudarstvennyy nauchno-issledovatel'skiy institut Grashdanskogo
vozdushnogo flota, Vsesoyuznyy institut zashchity rasteniy i
Ukrainadly nauchno-issledovatel'skiy institut zashchity rasteniy.
(Aeronautics in agriculture) (Potato beetle—termination)

FOMYUK, Z.P.

Evaluation of the transfusion of an erythrocyte suspension prepared on solution no.8 from the Central Institute of Hematology and Blood Transfusion and on a lactate-sucrose-glucose-citrate solution. Probl. gemat. i perel. krovi 8 no.5: 55-57 My'63. (MIRA 16:8)

1. Iz Kiyevskogo instituta perelivaniya krovi (direktor - dotsent S.S. Lavrik).

(BLOOD--TRANSFUSION) (ERYTHROCYTES)

FONAGY, I.

Documents of the Great October socialist Revolution in the Museum of the History of the Communist Party of the Soviet Union. p. (2) of cover. Vol 114, no. 11, Nov. 1955. TERMESZET ES TARSADALOM. Budapest, Hungary

So: Eastern European Accession. Vol 5, no. 4, 1956- April

FONAGY I.
EXCERPTA MEDICA Sec 11 Vol 11/11 O. R. I. Nov 22, 1958

2177. ELECTROPHYSIOLOGY OF THE ACCENT - Elektrophysiologische Beiträge
zur Akzentfrage - Fónagy J. Gábor Áron Utca 1, Budapest II - PHONE-
TICA (Basel) 1958, 2/1-2 (12-58) Graphs 43 Tables 4

A direct electro-physiological investigation of the internal intercostal muscles
proved that the activity of these muscles always increases in stressed syllables.
The listener bases his judgment on this force used and feels those syllables which
are produced with a greater speech intensity to be stressed even when they are
inferior to an unstressed syllable in loudness, pitch and length. A return to the
original physiological conception of accent classically formulated by Otto Jespersen
is unavoidable since accent is simply not to be defined on an acoustic level. The
use of greater force is reflected in the tone, in the tone colour, and usually in the
lengthening of stressed syllables, as well as in the comparatively greater volume
of the stressed vowel. This acoustic reflexion is at the same time regulated
according to conventions. Thus the accented syllable has a more or less different
form in different languages. The secondary, linguistically determined accent
markers make it easier to distinguish stressed syllables but may also in the case
of a foreign language lead to a false judgment of accent placement. In general,
however, the greater use of force can be correctly recognized even in these cases.
The secondary accent markers can only mark a greater use of force and represent
secondary accent marker becomes permanently divorced from speech intensity it ceases
to be a method of achieving prominence. Since quantity, intonation and volume
become means of achieving prominence simply as signs of the greater use of force,
to distinguish different kinds of accent - i.e. dynamic, melodic, and quantitative
accent - would be misleading.

EXCERPTA MEDICA Sec 8 Vol 12/7 Neurology July 59
of the

3548. PHONETICS AND PSYCHOANALYSIS. PSYCHOLOGICAL REPORT ON
ACOUSTIC STRESS - Phonetik und Psychoanalyse. Psychologisches über
den Druckakzent - Fényay I. Gabor Aron utca 1 b, Budapest II - PSYCHE
(Heidelberg) 1958, 12/1 (63-72)

The placing of stress in a sentence is a sublimated form of defaecation; stress,
therefore, has an anal character. The severity of the stress is inversely related
to the genitality. Depending on the manner of stressing, speech acquires an anal,
urethral or genital character.

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413510015-1

HUNGARY

FÉNYAY, Iván, Candidate of Linguistic Sciences, of the Institute for
Linguistics at the Hungarian Academy of Sciences (Magyar Tudományos
Akadémia Nyelvtudományi Intézete) [location not given] (Director: KÉMÉTH,
Gyula, academician).

"Sentiments Expressed by Movement at the Level of the Larynx"

Budapest, Magyar Pszichológiai Szemle, Vol 40, No 4, 1965, pp 40-51.

Abstract: (Author's English summary, abbreviated) Laryngoscopic obser-
vations, radiographic tomograms, and asymmetric roentgenograms showed
that the activity of the larynx is altered in a characteristic manner
during speech by certain emotions. These alterations can be understood
if the corporal symptoms of sentiments are considered as remnants of
an activity that was useful in an archaic situation, i.e., as a move-
ment expressing the activity of laryngeal muscles. Expressions enacted
at the level of the larynx become perceptible in the voice. Sixteen
references, including 3 Hungarian, 2 German, 1 Russian, and 10 Wes-
tern.

1, 1

FONAR', I. M.

"Investigation of Geneva Movements of Modern Motion-Picture Projectors, and Increasing Their Resistance to Wear." Thesis for degree of Cand. Technical Sci. Sub 30 Jun 49,
All-Union Sci Res Inst of Cinematography, Ministry of Cinematography USSR

Summary 82, 18 Dec 52, Dissertations Presented for Degrees in Science and Engineering
in Moscow in 1949. From Vechernaya Moskva, Jan-Dec 1949.

FONARDZHIAN, V. M.

IL'YASOV, I.I.; FONARDZHIAN, V.M.; HERMAN, A.G.

Fusibility in the system of sodium and thallium bromides and
chlorides. Zhur.neorg.khim. 2 no.9:2154-2158 S '57. (MIRA 10:12)
(Fusion) (Systems (Chemistry))

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413510015-1

FONAREV, A.

A shortwave radio receiver. Radio no.8:19-20 Ag '62.
(MIRA 15:8)
(Radio, Shortwave--Receivers and reception)

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413510015-1"

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413510015-1

FONAREV, A.

A shortwave radio receiver. Radio no.9:16-19 S '62.
(MIRA 15:9)
(Radio, Shortwave--Receivers and reception)

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413510015-1"

FONAREV, A., inzh.

A radio receiver for "fox hunting" games. Radio no. 12:20-22 D '62.
(MIRA 16:3)
(Radio direction finders) (Radio-receivers and reception)

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413510015-1

FONAREV, A.

Three-band transmitter. Radio no. 5:20-23 My '65.

(MIRA 18:5)

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413510015-1"

FONAREV, A. L., Cand Tech Sci -- (diss) "Research into the hydrodynamic forces arising in the body of a ship when turning in a circle." Kalinin-
grad, 1960. 15 pp; (Ministry of Higher and Secondary Specialist Educa-
tion RSFSR, Kaliningrad Technical Inst of Fish Industry and Economy);
150 copies; price not given; (KL, 22-60, 140)

70-2708 V. H. P.
USSR/Medicine - Physiology

FD-2708

Card 1/1

Pub. 33-17/28

Author

: Fonarev, A. M.

Title

: Method for recording blinking reflexes in suckling infants

Periodical

: Fiziol. zhur. 41, 101-102, Jan-Feb 1955

Abstract

: Describes an electrical battery-operated device suitable for recording blinking reflexes in suckling infants. Diagrams; kymogram. Four references, all USSR (2 since 1940).

Institution

: Laboratory of Higher Nervous Activity of the Child. Institute of Pediatrics of the Academy of Medical Sciences USSR, Moscow

Submitted

: May 7, 1954

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413510015-1

FONAREV, A. M.: Master Biol. Sci (diss) -- "The development of the visual-motor functions of the eyes of children in early stages of ontogeny". Moscow, 1959.
16 pp (Acad Med Sci USSR), 200 copies (KL, No 17, 1959, 107)

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413510015-1"

FONAREV, A.M.

Vestibulopalpebral reflex. Biul. ekspr. biol. i med. 50 no.12
(MIRA 14:1)
18-20 D '60.

1. Iz otdela razvitiya i vospitaniya detey (zav. - chlen-korrespondent AMN SSSR prof. N.M.Shchelovanova) Instituta pediatrii AMN SSSR, Moskva. Predstavlena deystvitel'nym chlonom AMN SSSR G.N. Speranskim.

FONAREV, A.M. (Moskva)

Chamber with a homogeneous optical medium for studying the nervous
activity in children. Vop. psichol., 8 no.4:133-137 Jl-Ag '62.
(MIRA Mo:1)
(Child study)

FONAR'EV, Aleksandr Mikhaylovich, st. nauchn. red.; VNIIGA, L.Ya.,
red.

[For your child] Dlia vashego rebenka. Moskva, Fizkul'tura i sport, 1964. 50 p.

PONAREV, A.N.

Hydrogeological conditions of eastern Chkalov Province and water supply characteristics of state farms, machine-tractor stations, and collective farms reclaiming virgin and idle lands. Mat. po. geol. i pol. iskop. IUsh. Urals no.1:71-78 '56. (MIRA 10:3)
(Chkalov Province---Water supply)

NEMCHINOV, I.V. (Moskva); FONAREV, A.S. (Moskva)

Couette flow, taking radiative heat transfer into account.
(MIRA 14:7)
PMTF no.3:146-15 S-0 '60.
(Heat Radiation and absorption)
(Gas flow)

KOROTYANSKIY, A.M.; REZNIKOV, A.D.; FONAREV, A.S.

Device for determining the depth of the setting of the casing, and
of the sump and water level in the hole. Nauch.trudy VNII Podzemgaza
no.7:79-82 '62. (MIRA 15:11)

1. Laboratoriya teplotekhniki i energetiki Vsesoyuznogo nauchno-
issledovatel'skogo instituta podzemnoy gazifikatsii ugley.
(Coal gasification, Undergroun—Equipment and supplies)

LAB, Publ. No 1061 + 31K867
ALL UNION SCI PCS INST UNDERGROUN
GASIFICATION OF COAL.

FONAREV, A.S. (Moskva)

Problem of the adiabatic expansion of a plane gas layer under
arbitrary initial conditions. Inzh. zhur. 3 no.1:18-26 '63.
(MIRA 16:10)
(Gas dynamics)

ACCESSION NR: AP4037269

S/0208/64/004/003/0604/0610

AUTHOR: Fonarev, A. S. (Moscow)

TITLE: Method of numerical computation and solution of the problem of dispersion
of a plane gas layer with graduated nonuniform energy liberationSOURCE: Zhurnal vychislitel'noy matematiki i matematicheskoy fiziki, v. 4, no. 3,
1964, 604-610TOPIC TAGS: gas dispersion, energy liberation, gas motion, adiabatic exponent,
gas dynamicsABSTRACT: The author studies a system of gas dynamics equations in the presence
of interior sources of heat liberation or absorption in the medium (without consid-
eration of viscosity and heat conductivity), in the form of integral laws of con-
servation:

$$\begin{aligned} \oint v dm + ur^* dt &= 0, & \oint u dm - pr^* dt &= -v \int r^{-1} p dr dt, \\ \oint \left(\epsilon + \frac{u^2}{2} \right) dm - pur^* dt &= - \int f dm dt, & dm &= pr^* (dr - u dt). \end{aligned} \quad (1)$$

Here p is pressure, v is specific volume, u is the gas velocity, ϵ is internal
Card 1/3

ACCESSION NR: AP4037269

energy of a unit mass, f is intensity of energy input to the gas in a unit mass and unit time, r is the Euler coordinate, m is mass (Lagrange) coordinate, t is time, $\nu = 0, 1, 2$, respectively in the plane, cylindrical, and spherical cases; the integrals in the right parts are taken over an area bounded by an arbitrary contour. He assumes that system (1) is described in dimensionless form; the dimensional constants are defined later. The intensity of energy input f is a known function of the coordinate, time, and the parameters of the gas. His conditions guarantee stability of the computation. His computations agree reasonably well with computations by the method of characteristics for smooth solutions and the obtained results are comparable to certain exact solutions. Since the bases for construction of the scheme are the laws of conservation and the scheme is constructed to exclude shock waves of rarefaction, it can be hoped that the approximate solutions thus obtained will be close to the generalized solutions of the equations of gas dynamics even if these generalized solutions contain discontinuities. In the first approximation the author determines the effect of energy input on the parameters of the gas after decomposition of an arbitrary discontinuity. His obtained expressions do not give additional singularities. The author treats the problem of dispersion of a plane gas layer with nonuniform energy liberation. The obtained numerical results clearly verify the rapid output of gas motion under self-simulating conditions. "In conclusion I offer my gratitude to A. A. Nikol'skiy for his help with the subject, to I. V. Nemchinov for his great help and fruitful

Card 2/3

ACCESSION NR: AP4037269

discussion, and to E. I. Adriankin, A. I. Golubinskiy, and V. N. Zhigulev for many valuable comments in discussions of the results. I consider it a pleasant duty to thank S. K. Godunov for discussions and explanations of many questions." Orig. art. has: 4 figures and 7 formulas.

ASSOCIATION: none

SUBMITTED: 26Jun63

DATE ACQ: 09Jun64

ENCL: 00

SUB CODE: ME

NO REF Sov: 007

OTHER: 000

Card 3/3

L 15295-66 EWT(1)

ACC NR: AP6002617

SOURCE CODE: UR/0258/65/005/006/1035/1043

AUTHOR: Fonarev, A. S. (Moscow)

ORG: none

TITLE: On asymptotic solutions of unsteady gas expansion in a vacuum

SOURCE: Inzhenernyy zhurnal, v. 5, no. 6, 1965, 1035-1043

TOPIC TAGS: gas dynamics, asymptotic property, unsteady flow, vacuum diffusion

ABSTRACT: The asymptotic behavior of an ideal gas expanding in a vacuum is investigated for various initial conditions and different values of the adiabatic constant γ . The effects of initial internal and kinetic energies of the gas on the expansion coefficients are considered first. The asymptotic behavior of the similarity solution yields in this case

$$J(t) = at, \quad v^*(t) = \frac{(at)^{v+1}}{v+1}, \quad u^*(t) = a,$$

$$p^*(0) = \lambda (at)^{\gamma(v+1)}.$$

These results show that the solution is independent of the entropy λ . To study

Card 1/2

UDC: 533.6.011

ACC NR: AP6002617

3

the effect of χ on the gas expansion, the plane, isentropic expansion of a gas bounded on one side with a wall is analyzed for two types of initial conditions: 1) self-similar density and pressure distributions; 2) a uniform initial distribution. The corresponding mass-density distribution for each case yields

$$\begin{aligned} \left(\frac{m}{M}\right)_1 &= \frac{2}{\pi} \sqrt{1 - f^{\frac{2}{k-1}}} \sum_{i=1}^{k-1} \frac{[2^{(k-i)} (k-i)!]^{\frac{2k-2i+1}{k-1}}}{(2k-2i+1)!} + \\ &\quad + \frac{2}{\pi} \arcsin \sqrt{1 - f^{\frac{2}{k-1}}}, \\ \left(\frac{m}{M}\right)_2 &= \sqrt{1 - f^{\frac{2}{k-1}}} \left[\sum_{i=1}^{k-1} \frac{(2k-2i-1)!}{2^{2k-2i-1} (k-i)! (k-i-1)!} \right]^{\frac{k-1}{k-1}} + 1. \end{aligned}$$

These results show that as k increases (or as $\chi \rightarrow 1$), the two results become identical for $0 \leq m < 1$. Particle density distribution $f(m)$ are also calculated numerically for widely varying initial conditions and for $\chi = 1.4$. The asymptotic values of these $f(m)$'s are shown graphically and are found to be very close to one another in magnitude. The author thanks A. A. Nikol'skiy, M. D. Ladyzhenskii, and V. A. Smirnov for their valuable remarks in evaluating this work. Orig. art. has: 49 equations and 3 graphs.

SUB CODE: 20/ SUBM DATE: 30Mar65/ ORIG REF: 013/ OTH REF: 003

Card 2/2 mjs

YELIN, I.; PONAREV, G.; LIKVER, L.

Repair of engine blocks by epoxy resin. Mor. flot 20
no. 12:30 D '60. (MIRA 13:12)

1. Nachal'nik laboratorii TSentral'nogo nauchno-issledovatel'skogo instituta morskogo flota (for Yelin). 2. Nachal'nik otdela flota Antarkticheskikh kitoboynykh flotilii (for Ponarev). 3. Starshiy inzhener Odesskoy nauchno-issledovatel'skoy stantsii TSentral'nogo nauchno-issledovatel'kogo instituta morskogo flota (for Likver).
(Marine engines--Maintenance and repair)
(Epoxy resin)

YAVORKOVSKIY, L.I.; FONAROV, G.A.

Acute leukemia and pregnancy. Probl. gemit. i perel. krovi 3 no.6:
20-23 N-D '58.
(MIRA 12:7)

1. Iz Respublikanskoy klinicheskoy bol'nitsy Latviyskoy SSR (glavnnyy
vrach Z.N. Shelemina).
(LEUKEMIA) (PREGNANCY, COMPLICATIONS OF)

S/169/61/000/009/056/056
D228/D304

3.9410

AUTHOR:

Fonarev, G. A.

TITLE:

Marine telluric currents and their connection with
magnetic variations

PERIODICAL:

Referativnyy zhurnal. Geofizika, no. 9, 1961, 29,
abstract 9G232 (Geomagnetism i aeronomiya, I, no. 1,
1961, 82-86)

TEXT: The commonplace problem about the relationship of changes of electric currents in the sea to the temporal variations of the earth's magnetic field is considered. The appraisals thus obtained of the electric field for cases of magnetic storms, coil-type disturbances, and pulsations are cited. [Abstracter's note: Complete translation.]

B

Card 1/1

FONAREV, G.A.

Variations of marine telluric currents. Geomag. i aer. 1
no.3:417-420 My-je '61. (MIRA 14,9)

1. Institut zemnogo magnetizma, ionosfery i rasprostraneniya
radiovoln AN SSSR.
(Terrestrial electricity)

FONAREV, G.A.

Some data on telluric currents in the Barents Sea. Geomag. i
aer. 1 no.4:599-605 Jl-Ag '61. (MIRA 14:12)

1. Institut zemnogo magnetizma, ionosfery i rasprostraneniya
radiovoln AN SSSR.
(Barents Sea—Earth currents)

L 18538-63

EWT(1)/BDS

AFFTC/ESD-3

P1-4/P9-4

GW

S/0203/63/003/004/0784/0785

ACCESSION NR: AP3004027

AUTHOR: Fonarev, G. A.

TITLE: Vertical electrical currents in the sea

SOURCE: Geomagnetism i aeronomiya, v. 3, no. 4, 1963, 784-785

TOPIC TAGS: vertical electrical current

ABSTRACT: Measurements of vertical earth currents in Lake Baikal indicate that these currents represent an actual geophysical phenomenon. The author starts with the expression for the current function

$$\Delta\psi = \frac{i\omega H}{c} = A \quad (1)$$

where $H = H_0 e^{i\omega t}$ (the variation in the magnetic field), t is time, ω is circular frequency, i is an assumed unit, ζ is conductivity of water. From this he derives equation

$$E_{g\max} = \frac{2\zeta i \omega H}{c} \left(\pi + \frac{1}{\pi^2} \right). \quad (2)$$

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ACCESSION NR: AP3004027

for roughly estimating the potential gradient [Abstracter's note: \propto , not explained] for pelagic conditions, with $H = 100\text{r}$, time of 300 sec., and depth of 200m, the formula gives the maximum potential gradient $E_y = 2.5 \text{ mv/m}$. Measurements taken in the Arctic Ocean show that the intensities of the vertical current component are much smaller than those of the horizontal components. For example, when E_{N-S} and E_{E-W} are 110 mv/m, E_y is 4 mv/m. Orig. art. has: 1 figure and 7 formulas.

ASSOCIATION: Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln AN SSSR (Institute of Earth's Magnetism, Ionosphere, and Radio-Wave Distribution, Academy of Sciences, SSSR)

SUBMITTED: 15Mar63

DATE ACQ: 15Aug63

ENCL: 00

SUB CODE: AS

NO REF Sov: 002

OTHER: 001

Card 2/2

NOVYSH, V.V.; FONAREV, G.A.

Telluric currents in the Arctic Ocean. Geomag. i aer. 3 no.6:
1141-1142 N-D '63. (MIRA 16:12)

1. Institut zemnogo magnetizma, ionosfery i rasprostraneniya
radiovoln AN SSSR.

Russia, Geog.

Distribution of electromagnetic variations in the sea along the depth.
Geomag. i aer. 4 no.6:1133-1134 N.D. '64. (MISA 381).

I. Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovibra-
AN SSSR.

L 25605-65 EWT(1)/EEC(t)/FCC Pt-4/Po-4 GV
ACCESSION NR: AP5004593

s/0020/65/160/002/0332/0333

23
18
B

AUTHORS: Fonarev, G. A.; Novysh, V. V.

TITLE: Some results of telluric current measurements on Severnyy Polyus 10 in 1963

SOURCE: AN SSSR. Doklady, v. 160, no. 2, 1965, 332-333

TOPIC TAGS: telluric current, telluric activity, terrestrial magnetism, ocean/ IELAN IZMIRAN electrode system, PS 1 01 electrode system, EPO 5 electrode system, PVR electrode system

ABSTRACT: The study of telluric currents in the Arctic Ocean was extended to Severnyy Polyus-10, and recordings were made from June 1 to November 6, 1963. During this period the station drifted within the section $\varphi = 81^{\circ}50'-84^{\circ}40' N$ and $\lambda = 140^{\circ}45'-151^{\circ}26' E$. Two results were recorded: the constant horizontal component of the telluric currents and the variations in the vertical currents. Measurements of the horizontal component were made along the magnetic meridian and perpendicular to it. The measuring electrode was a nonpolarizable silver-chloride system immersed at a depth of 7 meters. The results showed no horizontal component

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ACCESSION NR: AP5004593

within the area covered by station 10. A similar type of system was used to measure the vertical current, and a total of 55 recordings was made at 10-minute intervals. No variations could be noticed in the vertical current. Orig. art. has: 1 figure.

ASSOCIATION: Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln Akademii nauk SSSR (Institute of Terrestrial Magnetism, Ionosphere, and Radiowave Propagation, Academy of Sciences SSSR)

SUBMITTED: 06Aug64

ENCL: 00

SUB CODE: ES

NO REF SOV: 001

OTHER: 000

Card 2/2

L 38570-65 EWT(1)/EWP(m)/EPR/EEC(t)/FGS(k)/EWA(l) Pd-1/Ps-l, WW
ACCESSION NR: AP5006155 S/0258/65/005/001/0016/0028

18
B

AUTHOR: Fonarev, A. S.

TITLE: Nonstationary expansion of gas in vacuum under different laws and durations of energy release

SOURCE: Inzhenernyy zhurnal, v. 5, no. 1, 1965, 16-28

TOPIC TAGS: gas expansion, self similar motion, energy release, gasdynamics

ABSTRACT: Making use of the results of N. V. Nemchinov (Prikl. matem. i tekhn. fizika, no. 1, 1961) and of his own results (Vychisl. mat. i matem. fizika, no. 3, 1964), the author analyzes the expansion of a plane layer of an ideal gas of special mass in vacuum, in the case when the density of the gas and the amount of heat supplied to it are variable. Particular attention is paid to cases of slow (power-function and exponential) energy release and to almost instantaneous energy release. The results show that the asymptotic solutions of the gasdynamic equations depend on the time variation of the energy release and on the time duration of the release. If the gas motion is self-similar, the total momentum does

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ACCESSION NR: AP5006155

not depend on the manner with which energy is supplied, and is determined only by the total energy and mass of the gas, and by the distribution of the energy over the mass. It is also shown that although the initial distributions of the parameter lead to essentially asymptotic behavior of the solutions, it is possible, by expressing the expansion of the gas in terms of mass coordinates and introducing some similarity laws resulting from the solution of the self-similar problem, to obtain an asymptotic solution which is practically independent of the initial conditions but depends only on the total energy of the entire layer of gas, the mass of the layer, and the law of distribution of entropy between the gas particles. The effect of strong shock waves is not considered in this work. Orig. art. has: 5 figures, 39 formulas, and 2 tables.

ASSOCIATION: None

SUBMITTED: 07Jul64

ENCL: 00

SUB CODE: ME

NR REF Sov: 006

OTHER: 002

Card 2/2

L 24810-66 EWT(1)/FCC GW

ACC NR: AP6011712

SOURCE CODE: UR/0203/66/006/002/0406/0409

3
B

AUTHOR: Novysh, V. V.; Fonarev, G. A.

ORG: Institute of Terrestrial Magnetism, Ionosphere and Radiowave Propagation AN
SSSR (Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln)

TITLE: Some data from electromagnetic studies in the Arctic Ocean¹²

SOURCE: Geomagnetizm i aeronomiya, v. 6, no. 2, 1966, 406-409

TOPIC TAGS: electromagnetic field, diurnal variation, telluric current

ABSTRACT: Data are given on measurements of telluric currents and their relationship to magnetic variations according to studies made for a period of six months from May to October 1963 on floating station SP-10.¹² During this period, the station drifted within an area bounded by 81°50'-84°50' N lat. and 140°46'-151°36' E long. Ocean depths varied from 1120 to 4000 meters. The equipment and procedure used for measuring the telluric currents are briefly described. Current activity was evaluated from the maximum amplitudes of oscillations for a ten minute period in each hour. The daily activity was determined as the arithmetical average of 24 consecutive measurements. Analysis showed a slightly greater activity for the E-W

UDC: 550.371

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L 24810-66
ACC NR: AP6011712

component. October was the quietest month for the observation period. Activity in 1963 was 1/2-1/4 of that observed in 1962. This may be explained by a reduction of solar activity in the 11-year cycle, and by greater ocean depths in the region of the 1963 observations. Maxima at 9 and 22 hours UT were observed in the diurnal variation of hourly average oscillation amplitudes. Various types of oscillations in telluric currents according to observations in 1963 are discussed. Telluric storms were observed in three cases where the amplitudes of the electric field were greater than 100 mv/km, whereas the average amplitudes were of the order of tens of mv/km. Wave trains often coincide in form with short storms. The amplitudes of these trains are of the order of tens of mv/km. Oscillations of irregular shape were observed which continued for several hours and even days. These irregular oscillations represent the most widespread form of disturbance in the Arctic Ocean. They were observed for approximately 50% of the time during the operating period. These oscillations had amplitudes varying from units to tens of mv/km. Micropulsations in the currents were observed with periods varying from seconds to two minutes. The amplitudes of the pulsations were measured in tenths of millivolts to a few millivolts per kilometer. The first and second harmonics in diurnal variations measured ~1-3 mv/km. Recordings of variations in the magnetic field on the SP-10 station in 1963 show no oscillations with periods of less than ten minutes in the vertical.

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L 05255-67 EWT(1)/FCC GW
ACC NR. AP6018920 (N)

SOURCE CODE: UR/0203/66/006/003/0541/0543

AUTHOR: Fonarev, G. A.

ORG: Institute of Terrestrial Magnetism, the Ionosphere, and Radio Wave Propogation, AN SSSR (Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln AN SSSR)

TITLE: A method for measuring telluric currents at sea

SOURCE: Geomagnetizm i aeronomiya, v. 6, no. 3, 1966, 541-543

TOPIC TAGS: telluric current, ocean dynamics, geomagnetic measurement

ABSTRACT: Methodological problems involved in the measurement of telluric currents at various depths in sea water are discussed. An arrangement, successfully used in telluric current depth measurements at drifting station SP-10, is proposed, which permits the elimination of difficulties connected with the transmission of data from the underwater test base to the surface. A two-layer magnetotelluric model is considered, with a number of simplifying suppositions, and it is shown that when recording electrical fields in sea water with the arrangement suggested an electromotive force is induced in the test conductors, equal in magnitude to the attenuation of the electrical field due to the skin effect at the depth at which the reading is made. Ways and means of compensating for this phenomenon are discussed briefly. The

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ACC NR: AP6018920

theoretical considerations proposed are supported by experimental data obtained at drifting station SP-10 and during readings made at Lake Baykal. In conclusion, the author expresses his gratitude to V. V. Novysh for his discussion of the work. Orig. art. has: 3 figures and 9 formulas.

SUB CODE: 08/ SUBM DATE: 10Apr65/ ORIG REF: 005/ OTH REF: 001

Card 2/2 *ap*

L 05254-67 EWT(1)/FCC GW
ACC NR: AP6018921 (N)

SOURCE CODE: UR/0203/66/006/003/0544/0547

AUTHOR: Fonarev, G. A.; Ivanov, V. I.

ORG: Instituto of Terrestrial Magnetism, the Ionosphere, and Radio Wave Propagation, AN SSSR (Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln AN SSSR);
Department of Physics, Moscow State University (Moskovskiy gosudarstvennyy universitet,
Fizicheskiy fakul'tet)

TITLE: The magnetic fields of telluric currents at sea

SOURCE: Geomagnetizm i aeronomiya, v. 6, no. 3, 544-547

TOPIC TAGS: geomagnetic field, telluric current, ocean dynamics

ABSTRACT: The problem of magnetic fields produced by telluric currents in the ocean is considered on the basis of a twin-layer magnetotelluric model. Unit magnetic permeability is assumed everywhere, and bias currents are disregarded. Formulas are given for the determination of the electrical field in the water and for the magnetic field of the currents in the water. These two formulas are integrated and an expression is obtained for the ratio of the magnetic field generated by the sea currents to the total field observed on the surface of the water. It is demonstrated that for plane component fluctuations observed on the ocean's sur-

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UDC: 550.373

L 05254-67

ACC NR: AP6018921

face the magnetic field of marine telluric currents is equal in magnitude to the primary magnetic field (i.e., to the field of an ionospheric source). This thesis is confirmed by experimental data obtained in the Arctic Ocean on drifting station SP-10 during the 1962-1963 period, using PS-1-01 potentiometers and EPO-5 oscilloscopes. For variations over an extended period (diurnal and semi-diurnal) the magnetic current field in the ocean is 7%-15% that of the total field. Orig. art. has: 3 figures and 10 formulas.

SUB CODE: 08/ SUBM DATE: 14Sep65/ ORIG REF: 005/ OTH REF: 003

Card 2/2 gd

L 45220-65 EWT(m)/EWP(z)/T/EWP(b)/EWP(w)/EWA(d)/EWP(t) JD
ACCESSION NR: AP5008391 S/0148/65/000/003/0180/0185
18
G
16

AUTHOR: Tseytlin, V. Z.; Fonarev, G. S.

TITLE: The effect of temperature on the mechanical properties of a nichrome alloy

SOURCE: IVUZ. Chernaya metallurgiya, no. 3, 1965, 180-185

TOPIC TAGS: nichrome alloy, heat treatment, mechanical properties

ABSTRACT: Tensile properties of annealed and hardened specimen were tested in the temperature range from 20 to 850°C at loading rates from 1.2 to 20 mm/min. Annealed specimens had a multiphase structure and hardened specimens a monophase structure. The results of the tests are given in figs. 1 and 2 of the Enclosure. The "hump" in the yield stress curves, and the "dip" in the ductility curves in the 600-750°C range is clearly evident at loading rates of 1, 2 and 4 mm/min, and apparently takes place at a loading rate of 20 mm/min (judging from the 600-750°C range). The only deviation from the general rule for yield stress as a function of temperature is seen in hardened specimens. Additional tests on tensile strength and hardness measured at 50° intervals (see fig. 3 of the Enclosure) show that the range of the anomaly is 600-800° with the greatest deviation from 650 to 750°C.

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ACCESSION NR: AP5008391

This is attributed to the occurrence of the K-state in this range. Particular attention is given to the occurrence of "serration" in this alloy in the temperature range from 300 to 600°C as revealed on the strain gauge strip charts. In hardened samples, however, sporadic serrations are observed up to about 700°C. Twinning, K-state formation, and dislocation atmospheres or "clouds" are discussed as possible mechanisms causing serrations. K-state is dismissed as a possible primary mechanism but allowed as a reinforcing mechanism. Preference is given to the effect of the alternating blocking and release of dislocation movements by the atmospheres of atoms of dissolved elements surrounding dislocations in this temperature range. When these atmospheres are dispersed at higher temperatures, the serrations disappear. This process occurs more slowly in the solid solution of hardened metal than in annealed metal. Orig. art. has: 5 figures.

ASSOCIATION: Moskovskiy institut elektronnogo mashinostroyeniya (Moscow Electronic Machine Building Institute)

SUBMITTED: 10Jul63

ENCL: 03

SUB CODE: MM, TD

NO REF SOV: 009

OTHER: 004

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L 45220-65
ACCESSION NR: AP5008391

ENCLOSURE: 01

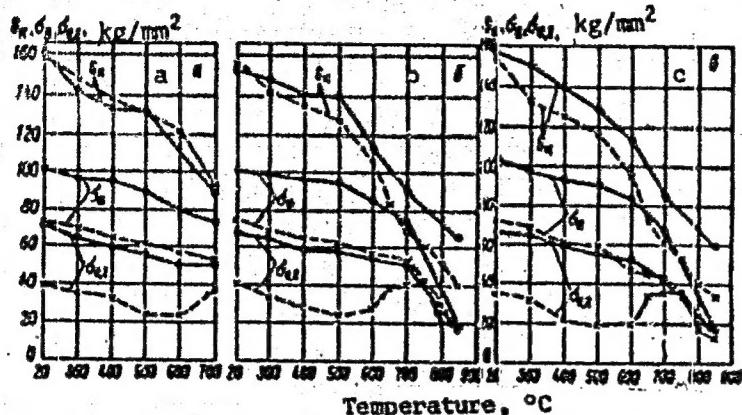


Fig. 1. Strength characteristics as a function of temperature for tests at various loading rates. a-- $V = 20 \text{ mm/min}$; b-- $V = 4 \text{ mm/min}$; c-- $V = 1.2 \text{ mm/min}$. Solid lines--annealed; broken lines--hardened.

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L 45220-65
ACCESSION NR: AP5008391

ENCLOSURE: 02

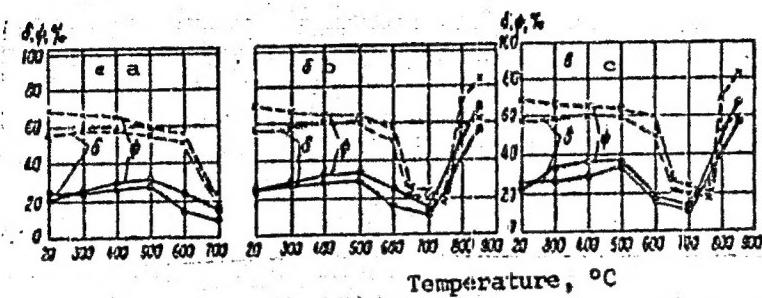


Fig. 2. Ductility as a function of temperature for tests at various loading rates
a-- $V=20$ mm/min; b-- $V=4$ mm/min; c-- $V=1.2$ mm/min. Solid lines--annealed; broken
lines--hardened.

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L 45220-65
ACCESSION NR: AP5008391

ENCLOSURE: 03

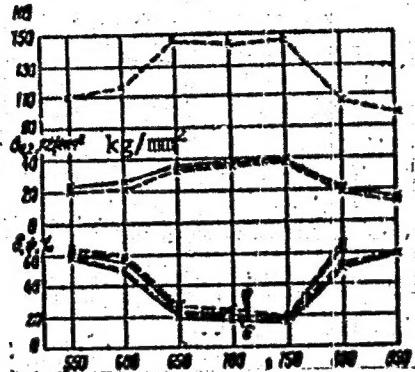


Fig. 3. Anomalous variations in ρ , α , δ and χ in the 600-800°C range.
Broken lines--1.2 mm/min; solid lines--4 mm/min.

Card 575

FONAREV, M.I.

Health education on problems of physical training for infants in
the family. Vop.ohh.mat.i det. 7 no.8:75-78 Ag '62.
(MIRA 15:9)
1. Iz Volkovskoy mezhrayonnoy bol'nitsy Leningradskoy oblasti
(glavnnyy vrach Z.A.Aleksandrov).
(INFANTS--CARE AND HYGIENE)